Remarks

This is responsive to the Office Action mailed on May 18, 2007. New claim 13 is added herein. Claims 1-13 are pending in the application. Claims 6-12 have been previously withdrawn from consideration. Claims 3 and 5 are considered to be allowable.

New claim 13 recites that substantially the entire perimeter of the shield can's rim includes an extra amount of solder. Support for this may be found, for example, at page 6, lines 18-23, which describes dipping the rim into molten solder, and Fig. 2, which illustrates the bead of solder (8) extending around the entire perimeter of the rim.

Examiner Interview

Scott M. Slaby, associate counsel for Applicants in this matter, requested an interview with Examiner Ngo, and a telephone interview was conducted on July 13, 2007. During the interview, U.S. Patent No. 4,838,475, claim 1, and the rejections under 102(b) and 103(a) were discussed. The Examiner noted that the reference to Seidler in the rejection under 103(a) was a typo and that the rejection should refer to the '475 patent to Mullins. No agreement was reached regarding the claims or rejections. Applicants and the undersigned attorney thank Examiner Ngo for his time.

35 U.S.C. §102 Rejections:

Claim 1 has been rejected under 35 U.S.C. §102(b) as being anticipated by Mullins et a. (US 4,838,475). The Examiner contends that Mullins et al. discloses providing a printed circuit board (18) with solder (solder paste on pad 21), providing a shielding can (10) with an extra amount of solder (24), placing the shield can (10) on the board (Fig. 3), heating (22) the PCB and the shield can, and cooling the PCB and the shield can (inherent). Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must teach every element of the claim. (MPEP § 2131.) While this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required, the reference must show the identical invention in as complete detail as is contained in the

claim. (Id.) That is, the elements in the reference must be arranged as required by the claims. (Id.)

Mullins is directed to providing a shield can that allows passage of infrared energy while blocking EMI/RFI energy. The walls and top of the shield in Mullins include apertures that allow infrared energy to pass through the shield, but the shield remains substantially opaque to EMI/RFI energy. Components can be positioned on a printed circuit board, and the shield can be mounted on the PCB to encapsulate the components. The structure can be exposed to infrared energy to reflow solder the components and shield to the substrate.

Mullins does not teach all the elements in claim 1. In particular, Mullins fails to teach providing the rim of the shield can with an extra amount of solder before the shield can is placed on the PCB. Based on the telephone interview with the Examiner, the Examiner contends that the disclosure at column 2, lines 63-68 teaches applying an extra amount of solder to the shield can. That disclosure only states that solder paste can be used in conjunction with the shield (10). There is no disclosure, however, to teach or suggest that the shield is provided with an extra amount of solder before the shield is placed on the PCB.

Moreover, when the reference is considered as a whole, it is clear that Mullins fails to disclose providing the shield can with an extra amount of solder before placing it on a PCB. In particular, Mullins only discloses using conventional reflow solder techniques to attach the components or shield to the PCB. For example, Mullins discloses that:

> [t]hrough appropriate initial application of solder paste, also in accordance with well understood prior art technique, the assembled structure can then be exposed to infrared energy (22) which energy substantially freely enters through the apertures (16) and causes the solder paste to melt and thereby cause the device (19) to become soldered in place. At the same time, if desired, solder paste can also be used in conjunction with the shield (1), which solder paste (24) will also melt upon exposure to the infrared energy (22), and thereby also cause the shield (10) to become soldered in place on the substrate (18).

(Column 2, lines 57-68.)

Further, even though Mullins states that solder paste can be used in conjunction with the shield can, Mullins only discloses that the shield can be mounted on a PCB "in accordance with well understood prior art technique." (Column 2, lines 49-51.)

Applicants submit that a person skilled in the art would understand that this "well understood prior art technique" refers to traditional reflow soldering, which is accomplished by applying solder paste to the PCB and not to the components or shield. The present application, for example, describes the prior art technique. In particular, the present application describes that the prior art technique to shield electronic components on a PCB involves (i) applying solder paste to the PCB by screen-printing, (ii) placing components on the PCB, (iii) placing the shield can on the PCB, and (iv) heating the PCB to melt the solder paste and solder the components and shield to the PCB. (See '012 application, page 1, line 35 to page 2, line 7.) Mullins does not teach or suggest, and the Examiner has not provided any other evidence to demonstrate, that the "well understood prior art technique" includes applying solder to the shield prior to placing the shield on the PCB. At best, Mullins' disclosure of applying the components and shield by a well-known prior art technique only teaches attaching the shield to the PCB using traditional reflow soldering where the solder paste is applied to the PCB and not the shield. Therefore, Mullins fails to show the identical invention in as complete detail as is contained in claim 1 and fails to anticipate claim 1. Applicants respectfully request that the rejection be withdrawn.

35 U.S.C. §103 Rejections:

Claims 2 and 4 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Mullins. The Examiner contends that the teaching of Mullins does not disclose the extra amount of solder being provided by a bath of molten solder or a screen printing process. The Examiner stated that it is well known in the electrical art to use a bath of molten solder or a screen printing process and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Seidler by employing the bath of molten solder or a screen printing process for intended purpose. Applicants respectfully traverse this rejection.

Claims 2 and 4 depend from claim 1. As described above, claim 1 is patentable over Mullins. Consequently, claims 2 and 4 are also patentable over Mullins. Applicants respectfully request that the rejection of claims 2 and 4 be withdrawn.

Conclusion

In view of the above remarks, Applicants respectfully request reconsideration of the application and issuance of a Notice of Allowance.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 18-0988 under Attorney Docket No. **SZACP0102US**.

Respectfully submitted,

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